Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

not regular, while the garnetiferous schists dip less steeply and invariably to the southeast. The garnets are frequently absent over large areas; again they are abundant, but as a rule less so as we approach the hydromica. On the East Branch of the Brandywine, and on the adjacent affluent, Valley Creek, the mica schists appear to be between two and three miles wide, while the hydromica narrows to probably less than three quarters of a mile.

This is in marked contrast to the exposure in Radnor, twelve miles to the northeast, where the mica schists are not over 200′ wide while the hydromicas extend two miles. On the East Branch the contact is near Hawley's Mill. The actual contact cannot be observed but the change of dip and in the character of the rock is well marked.

In these schists northwest of West Chester near Taylor's Mill, fragments, apparently of Potsdam sandstone, were found similar to the occurrence in Cream Valley and in them or next to them also occurs the limestone of this region.

In the discussions of the geology of this section it seems to have been taken for granted that the topographical South Valley Hill was wholly of hydromica schists which widened westward. The fact that the mica schists in question are not of the same age as the hydromica schists may explain in part the want of agreement between different geologists on this region. It was his intention to study this farther and present the facts more fully hereafter.

DECEMBER 9.

Dr. GEO. H. HORN in the chair.

Thirty persons present.

DECEMBER 16.

Dr. BENJAMIN SHARP in the chair.

Thirty-seven persons present.

Trichia proximella Karst.—**DR. GEO. A. REX** presented specimens of *Trichia proximella* Karst. and described its specific characters, history, and geographical distribution.

This species is not rare in the United States, having been found in many localities, its range, as far as yet known, extending from Canada to North Carolina and as far west as Iowa.

It occurs, however, less frequently than *Trichia chrysosperma* Rost. growing usually in small, scattered clusters of minute, closely aggregated, sessile sporangia of a golden brown color.

In the Journal of Mycology for August, 1886, the speaker had published a paper giving an analysis of the results of an examination of a large number of specimens of sessile, aggregate Trichias from widely separated localities.

Exclusive of those referred to *Trichia chrysosperma* Rost. the specimens there described, were all of one specific type possessing some of the diagnostic characters of *T. affinis* De By. and *T. Jackii* Rost. and yet properly referable to neither species.

Since that paper was written, however, a type specimen of *T. proximella* Karst. was obtained from Dr. Karsten by Mr. Harold Wingate, through whose courtesy the speaker was enabled by comparison with that type, to refer the above series of undetermined specimens to *T. proximella* with certainty.

More recently he has examined over fifty additional specimens, principally from Fairmount Park, Philadelphia, which would be issued in a forthcoming century of the North Am. Fungi, E and E.

In these he had found the same specific characters as before, the elaters morphologically similar in all specimens, but the spores showing a great variety of epispore sculpturing in the same cluster of sporangia and even in the same sporangium.

Using the figures of the spores of *T. affinis* and *T. Jackii* in Rostafinski's Monograph, as convenient type illustrations, it may be said that the spores in some of the sporangia of *T. proximella* show raised bands or markings largely of the *T. affinis* type; in others, largely of the *T. Jackii* type; in others, a commingling of both types, in all cases these type markings being more or less associated with a bewildering variety of sculptures of irregular form or of forms, suggesting the outlines of the Arabic numerals or various letters of the alphabet.

These bands are perforated through their thickness with one, two or three rows, or a cluster of minute cylindrical openings or pits, or are sculptured into intricate plexuses of minute reticulations with quadrilateral interspaces.

In the type specimen of *T. proximella,* the spore markings approach the *T. Jackii* type.

The elaters or threads are 4·5 μ thick and provided usually with four spirals which are closely and minutely spinulose, and connected with each other by well marked and numerous interspiral filaments.

The elaters in all the American specimens correspond morphologically with the type, differing only in a coarser growth in some cases due probably to local conditions.

The speaker further illustrated with the microscope the relations of *T. proximella* to *T. Jackii,* its nearest allied species.

Through the kindness of Prof. W. G. Farlow he was enabled to exhibit a type slide of *T. Jackii* prepared by Dr. Farlow from a portion of the type specimen of Rostafinski. Considering the great variability of the spore sculpturing in the two species, the spores of *T. Jackii* do not differ specifically from those of *T. proximella.*

The elaters, however, are more slender and otherwise not so strongly developed, having few and poorly developed interspiral filaments. Nevertheless these filaments can be determined beyond a doubt, by a sufficiently high power lens.

Under these circumstances the speaker believed that the difference between the two species is that of development only.

Note on Stemonitis maxima Sz.—MR. WINGATE remarked that he had carefully examined the type of this *Stemonitis* in the Schweintiz collection in the herbarium of the Academy, and although the specimen is very old and has not been handled with the care which is now bestowed upon these delicate forms of the Mycetozoa, the speaker was gratified to find a remnant of capillitium which contained spores enough to identify the species with one of the commonest forms found in this vicinity. This very common species will probably be found in most herbaria under the name of *Stemonitis fusca* (Roth) Rost. but on comparing it with an authentic specimen of the latter species the distinctness of the two species is very apparent. Mr. J. B. Ellis has sufficient material at present of *Stemonitis maxima* Sz. and proposes to issue it shortly in Ellis & Everhart's " North Amer. Fungi." The speaker was indebted to Mr. Geo. Massee of Kew Gardens, London, for authentic specimens of several species of *Stemonitis*, and hoped with this aid to be able to identify our American species and make the same the subject of a future communication.

DECEMBER 23.

Mr. CHAS. P. PEROT in the chair.

Thirty-one persons present.

A paper entitled " Palæosyops and Allied Genera," by C. Earle was presented for publication.

The Development of Bacillus tuberculosis.—DR. SAMUEL G. DIXON made the following summary report of his work in the Bacteriological Laboratory of the Academy with special reference to investigations on the tubercle bacillus. The communication was read at the meeting of the 18th ult., publication being deferred in consequence of the author's immediate departure for Europe:—

Our experiments show that the *Bacillus tuberculosis* is capable of changing from its commonly recognized rod form to that of a more compound one. Some of the rods assume a club shape, while further on in the cycle of life, they become branched, many organisms showing at least one distinct branch.

When these forms, including some ordinary shapes, are placed on a pabulum, rich in glycerine and poor in pepton, yet suited to their existence, the culture medium within a few weeks shows an increase of foreign matter. This includes not only a few of the complex forms but many ordinary rod bacilli. Time, however, produces an in-